NWS FORM E-5 (11-88) (PRES. by NWS Instru	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION uction 10-924) NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA)  WFO Jackson, Mississippi		
MONTHLY	REPORT OF HYDROLOGIC CONDITIONS	REPORT FOR: MONTH YEAR September 2016		
TO:	Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service	SIGNATURE Chad Entremont, Acting Meteorologist In-Charge		
	1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	DATE 10/18/2016		

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)



An X inside this box indicates that no river flooding occurred within this Hydrologic Service Area.

## Synopsis...

It is amazing how the weather can vary so greatly from month to month sometimes. This past August was one of the wettest for the HSA (Hydrologic Service Area), while September was one of the driest this year. The Vicksburg climate site only had 0.12 inches of rainfall this past month. Several other sites measured below an inch of rainfall as well. Hattiesburg received the most with 4.09 inches and was the only site that received within normal rainfall values. This September was also very warm along with the lack of precipitation. All climate sites recorded top 10 warmest Septembers. Hattiesburg and Meridian observed the warmest temperatures, both ranking as the 2<sup>nd</sup> warmest for the respective site.

# **Weather Highlights...**

Overall, September was a pretty quiet month for the HSA. It started out Labor Day weekend with Hurricane Hermine making landfall in the Big Bend of Florida. A front actually kept this hurricane from pushing more westward and affecting our area. Therefore, very little rain came of this system for us. As the hurricane departed and went up the east coast, high pressure settled in to the Southeast and return flow from the Gulf helped to produce a bit of scattered rainfall from the 4<sup>th</sup> through the 8<sup>th</sup> in south Mississippi and Louisiana.

On the 12<sup>th</sup>, a front passed through the HSA. It brought a little bit of scattered rainfall to the HSA, but the highest totals were mostly south of I-55. One or two isolated locations here managed to record up to 3 inches of rainfall this day. Afterwards, the weather became quiet and daily showers were hard-pressed to form.

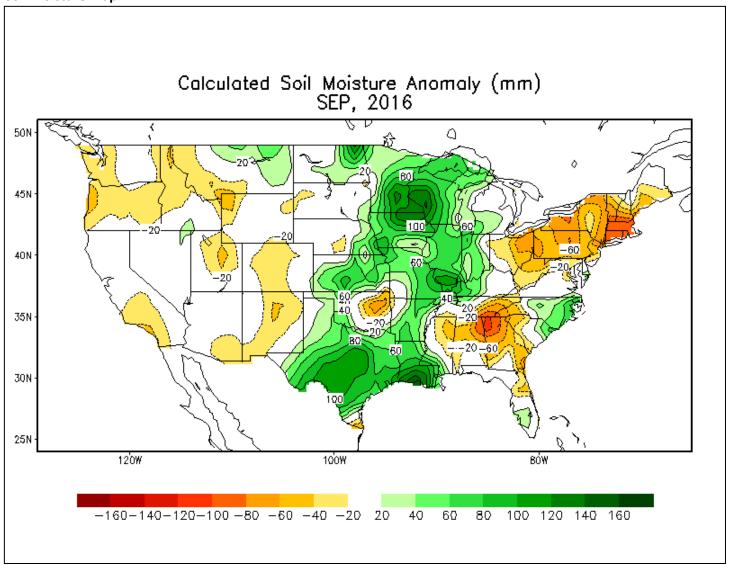
On the 18<sup>th</sup>, another front passed through the HSA and this time actually managed to bring in drier and cooler air to the area. The majority of the rain that fell with this system fell south of I-55. Again, isolated locations received up to 3 inches of rainfall.

With the drier and more seasonable airmass over the area, the HSA saw practically no rainfall until the 26<sup>th</sup> when another front swung through the South. This front reinforced the seasonable temperatures and developed a few scattered showers throughout the HSA as well. Highest rainfall amounts were only near 1.5 inches this time.

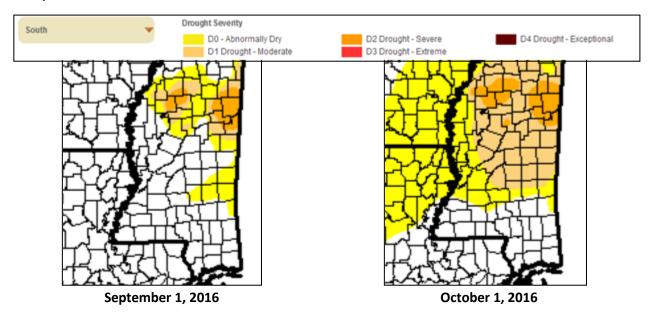
The rest of the month saw quiet weather and no rainfall.

# **River and Soil Conditions**

## **Soil Moisture Map:**

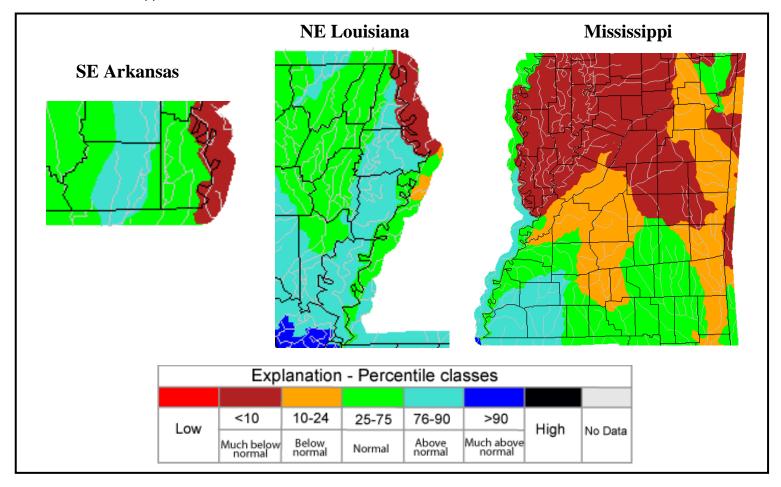


## **Drought Comparison:**



#### Streamflow:

The United States Geological Survey's (USGS) September 2016 river streamflow records were compared with all historical September streamflow records. Normal and above streamflow was experienced in all of Southeast Arkansas and Southeast Louisiana. Below normal streamflow was seen along the lower Big Black and mid to lower Pearl River basins, as well as the Chickasawhay and Noxubee River basins in eastern Mississippi. Much below normal streamflow was seen on the Mississippi River basin above Vicksburg, the upper reaches of the Pearl River, and all basins in Northwest Mississippi.



#### **River Conditions:**

There was no river flooding during the month of September.

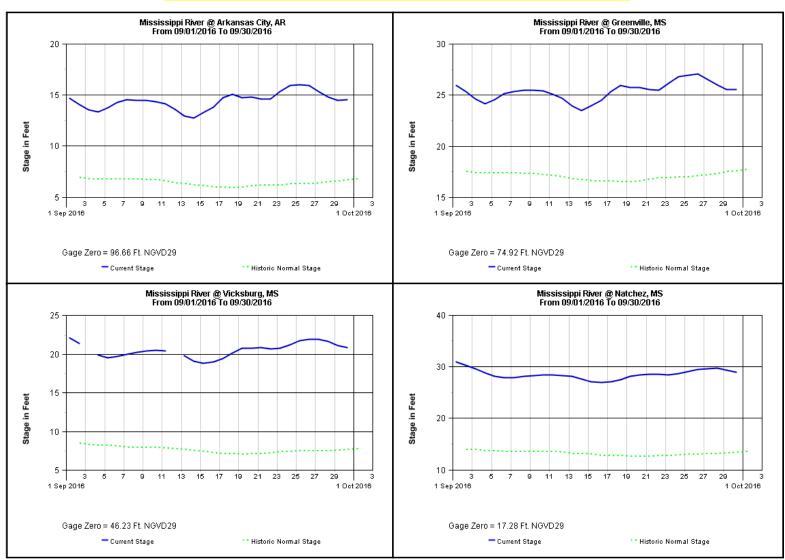
#### **Climatic Outlook and Flood Potential:**

The climatic outlook shows chances for above normal temperatures over the next three months for the western two-thirds of the HSA, with the eastern third having equal chances for above, below or normal temps. In regards to precipitation, the outlook indicates chances for below normal precipitation throughout the entire HSA. Thus, based on current soil moisture, streamflow, and the 3-month climate outlook, the flood potentials are thus:

Pearl River System: Normal.
Yazoo River System: Normal.
Big Black River System: Normal.
Homochitto River System: Normal.
Pascagoula River System: Normal.
Northeast LA and Southeast AR: Normal.
Tombigbee River System: Normal.

Mississippi River: Normal.

# Mississippi River Plots September 2016 Plots Courtesy of the United States Army Corps of Engineers



### **Monthly Preliminary High and Low Stages:**

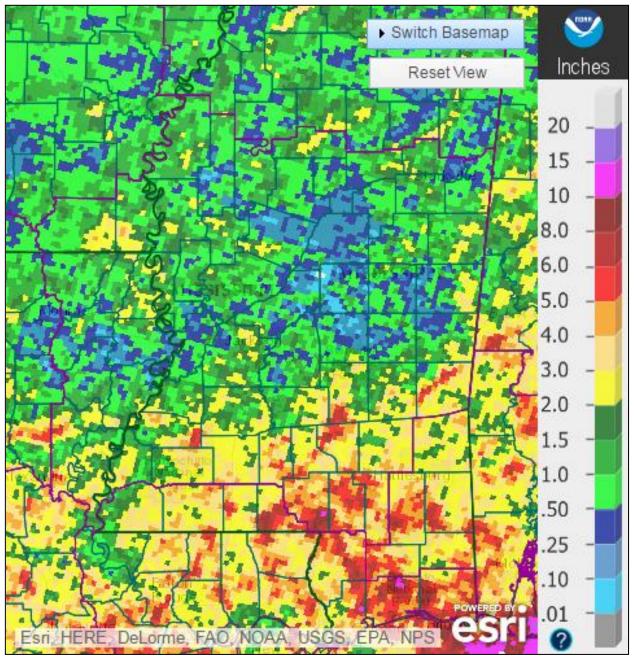
Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	15.98	9/25	12.76	9/14
Greenville	48	26.98	9/25	23.51	9/14
Vicksburg	43	22.09	9/01	18.83	9/15
Natchez	48	30.96	9/01	26.93	9/16

# **Rainfall for the Month of September**

During the period from 7 am August 31<sup>st</sup> until 7 am September 30<sup>th</sup>, the largest rainfall amounts from NWS Cooperative Observers were:

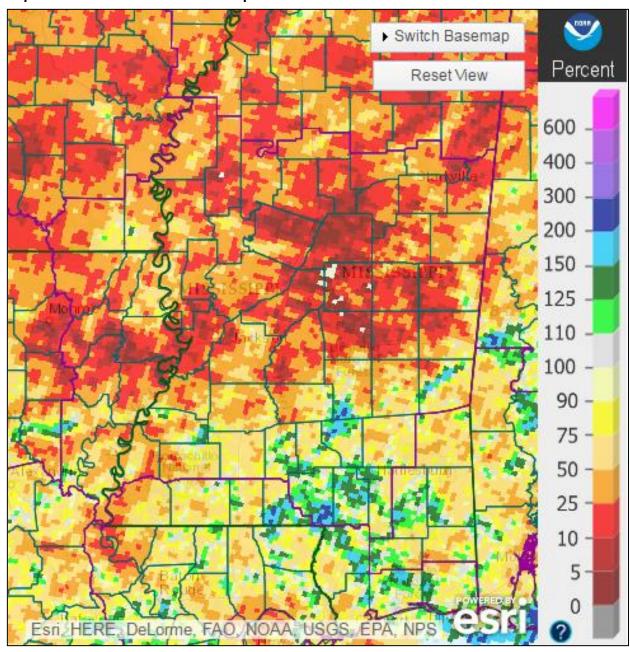
This will be updated at a later time

## **September Rainfall Estimates:**



Note: Observer rainfall and MPE in September may differ due to time differences.

# **September Percent of Normal Precipitation:**



Note: Observer rainfall and MPE in September may differ due to time differences.

#### **September Rainfall for Selected Cities:**

City (Airport)	Rainfall	Departure from Normal	2016 Rainfall	2016 Departure from Normal
Jackson (KJAN)	0.33	-2.70	53.53	+13.22
Meridian (KMEI)	0.57	-2.86	37.90	-4.49
Hattiesburg (KHBG)	4.09	+0.01	55.10	+8.86
Vicksburg (KTVR)	0.12	-2.77	51.67	+12.21
Greenville (KGLH)	0.68	-2.40	42.57	+4.93
Greenwood (KGWO)	1.88	-1.78	38.38	+0.65

Total Flood Warning products issued: 0
Total Flood Statement products issued: 0

Total Flood Advisories MS River: 0

Daily Climate and Ag WX Products (AGO'S) issued: 30 Daily CoCoRaHS Rainfall Products (LCO'S) issued: 30 Daily River and Lake Summary Products (RVD'S) issued: 30

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Service Hydrologist
&
Anna Wolverton
Assistant Hydrologist/ Meteorologist-Intern

cc:

Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District

USGS Little Rock District USGS Ruston District

Hydrologic Information Center Southern Region Climate Center Pat Harrison Waterway District

Pearl River Basin Development District